

Buprenorphine use is associated with a higher HIV risk profile than methadone use in a community-based cohort of injection drug users (IDUs) in Baltimore, USA



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BACKGROUND

- Opiate substitution therapy (methadone) has been associated with reduced HIV risk among IDUs.
- Methadone is limited by requirements of a prescription through a program and in some places laws forbidding its use.
- Buprenorphine can be prescribed in a physician's office and has less potential for addiction and induction of withdrawal.

OBJECTIVE

We characterized factors associated with buprenorphine vs. methadone uptake in a community-based cohort of IDUs in Baltimore, MD.

METHODS

Study Population / Design

•AIDS Linked to the IntraVenous Experience (ALIVE) cohort of IDUs in Baltimore, MD recruited through community outreach in 1988-89, 1994-95, 1998 & 2005-2008.

•This analysis included 1566 individuals who were still in follow-up after 2005 when questions on buprenorphine were added.

Statistical Analysis

•Factors associated with buprenorphine vs. methadone vs. no substitution therapy were analyzed using multinomial logistic regression models with generalizing estimating equations (GEE).

RESULTS

Table 1. Characteristics of population

	N (%), Median (IQR)
Median age (years, IQR)	46 (39 – 51)
Male gender	1028 (66)
African-American	1231 (79)
HIV –infected	415 (27)
Injection drug use	
None	456 (29)
<Daily	417 (27)
≥Daily	686 (44)
Prior methadone treatment	309 (45)

Table 2. Correlates of methadone and buprenorphine use (vs. no opiate substitution)

	OR (95% CI) for methadone	OR (95% CI) for buprenorphine
Calendar year:		
2005	1	1
2006	0.88 (0.76, 1.01)	1.36 (1.01, 1.85)
2007	0.92 (0.78, 1.08)	1.40 (1.03, 1.90)
2008	0.90 (0.76, 1.06)	1.80 (1.34, 2.42)
Age (per 10 years)	1.14 (0.98, 1.33)	0.66 (0.57, 0.76)
Female gender	2.59 (2.03, 3.32)	1.33 (1.02, 3.32)
African-American race	0.60 (0.43, 0.83)	0.31 (0.23, 0.41)
HIV positive	1.31 (1.0, 1.72)	0.66 (0.48, 0.90)
Incarcerated*	0.42 (0.32, 0.55)	1.14 (0.88, 1.48)
Homeless*	0.68 (0.52, 0.87)	2.82 (2.24, 3.56)
Depressive symptoms*	1.40 (1.13, 1.73)	2.03 (1.61, 2.56)
Hazardous drinking*	0.78 (0.61, 1.0)	1.31 (1.03, 1.67)
Injection drug use*:		
None	1	1
<Daily	1.26 (1.01, 1.58)	3.09 (2.20, 4.32)
≥Daily	0.88 (0.70, 1.11)	3.29 (2.40, 4.51)
Non-injection drug use*	0.99 (0.81, 1.23)	1.60 (1.23, 2.07)
Shared needles*	1.16 (0.95, 1.41)	2.78 (2.15, 3.60)
Overdosed*	1.02 (0.78, 1.33)	1.78 (1.23, 2.59)
Withdrawal symptoms*	1.06 (0.90, 1.23)	3.62 (2.90, 4.53)
Outpatient visit*	1.68 (1.42, 1.99)	1.29 (0.97, 1.73)
Health insurance*	1.99 (1.73, 2.29)	1.02 (0.82, 1.27)
Prior methadone*	48.5 (37.5, 62.8)	1.23 (0.82, 1.86)

Figure 1. Trends in methadone and buprenorphine uptake, 2005- 2008

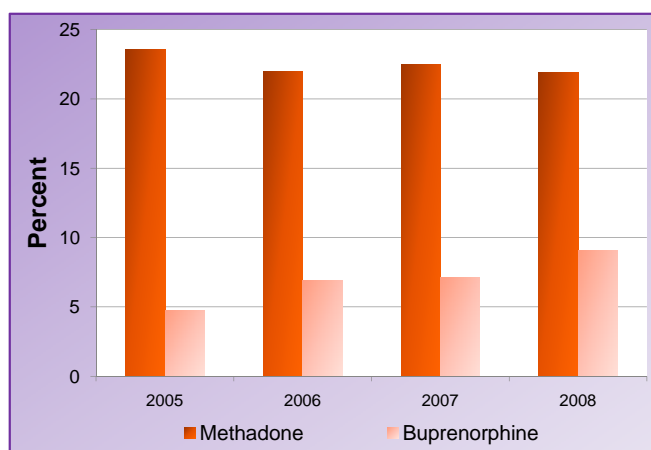
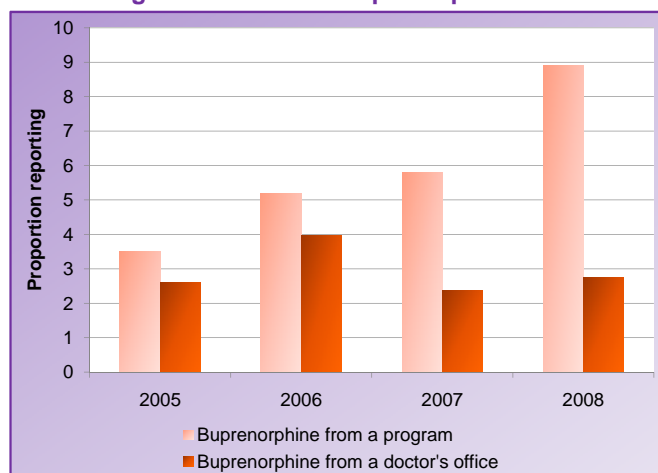


Figure 2. Source of buprenorphine use



CONCLUSIONS

- Persons receiving buprenorphine have a different risk profile than those seeking methadone maintenance
- Buprenorphine may expand access to therapy to even riskier users
- Buprenorphine treatment approaches should incorporate risk reduction counseling and other interventions to impact risk behavior and eventually HIV transmission